

Application No. 09/943,004  
Response to Office Action of May 17, 2005

Patent  
Attorney Docket No. 86655-1

## **II. REMARKS / ARGUMENTS**

### **A. Summary of the Amendments**

The application still contains forty-two (42) claims, numbered 1 to 42.

Claim 23 has been amended in order to change its dependency.

It is respectfully submitted that no new matter has been added to the application by way of the present amendment.

### **B. Summary of Objections, Rejections and Reply**

#### ***B.1 Apparent objection to the specification***

On page 1 of the Office Action, item 9 indicates that the specification is objected to by the Examiner. However, this appears to be an error since no objection to the specification has been found on subsequent pages of the Office Action. Clarification is respectfully requested.

#### ***B.2 Objection to claims 23 and 24 under 37 CFR 1.75***

On page 2 of the Office Action, the Examiner has objected to claims 23 and 24 under 37 CFR 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim.

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In response, claim 23 has been amended in order to make it dependent on claim 22, which depends on claim 6, which depends on claim 1. Claim 23 as amended thus no longer depends on claim 20. Claim 24 depends on claim 23 and thus also no longer depends on claim 20. Accordingly, it is respectfully submitted that claims 23 and 24 fully comply with 37 CFR 1.75(c). The Examiner is thus respectfully requested to withdraw the objection to claims 23 and 24 under 37 CFR 1.75(c).

***B.3 Potential objection to claims 38 to 40 under 37 CFR 1.75***

On page 2 of the Office Action, the Examiner indicated that should claims 1 to 3 be found allowable, claims 38 to 40 would be objected to under 37 CFR 1.75 as being "a substantial duplicate" of claims 1 to 3.

The Applicants respectfully submit that claims 38 to 40 are not "a substantial duplicate" of claims 1 to 3. Specifically, claims 38 to 40 specify that "each queue in the database [is] associated with packets of a corresponding one of a plurality of services classes intended to be forwarded to a corresponding one of a plurality of final destinations", and that a message from the downstream entity indicative of an ability of an intermediate destination to accept packets of a particular services class is used to alter the state of the queue associated with that particular services class. This association between queues and packets of a plurality of service classes is not recited in claims 1 to 3. Accordingly, it is respectfully submitted that an objection to claims 38 to 40 under 37 CFR 1.75 as being a substantial duplicate of claims 1 to 3 would be improper and should not be made by the Examiner.

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**B.4 Rejection of claims 1 to 5 and 26 to 42 under 35 USC 102**

On page 3 of the Office Action, the Examiner has rejected claims 1 to 5 and 26 to 42 under 35 USC 102(e) as being anticipated by U.S. Patent 6,728,211 to *Peris et al.* (hereinafter referred to as "Peris").

As described below, the Applicants respectfully traverse this rejection and submit that claims 1 to 5 and 26 to 42 are in condition for allowance.

Independent claim 1

The Examiner's attention is respectfully directed to the following reproduction of claim 1, portions of which have been emphasized:

A method of regulating packet flow to a downstream entity capable of forwarding packets to a plurality of intermediate destinations, the method comprising:

maintaining a database of queues, each queue in the database being associated with packets intended to be forwarded to a corresponding one of a plurality of final destinations via a corresponding one of the intermediate destinations, each queue in the database being further associated with a state that is either active or inactive;

upon receipt of a message from the downstream entity indicating a reduced ability of a particular one of the intermediate destinations to accept packets intended to be forwarded to a particular one of the final destinations, rendering inactive the state of the queue associated with packets intended to be forwarded to the particular final destination via the particular intermediate destination; and

upon receipt of a message from the downstream entity indicating an increased ability of a particular one of the intermediate destinations to accept packets intended to be forwarded to a particular one of the final destinations, rendering active the state of the queue associated with packets intended to be

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forwarded to the particular final destination via the particular intermediate destination.

It is respectfully submitted that Peris does not disclose or suggest the above-emphasized features of claim 1.

Firstly, Peris does not disclose or suggest "maintaining a database of queues [where] each queue [is] associated with packets intended to be forwarded to a corresponding one of a plurality of final destinations via a corresponding one of a plurality of intermediate destinations". Referring to Figures 2C and 7B and column 8, lines 30 to 35 of Peris, the Examiner contends that Peris discloses this association by disclosing that "packet queue-295 forwards the packet to the corresponding final destination (SE 2) via corresponding intermediate destinations (SE 1 & SE 3)". With all due respect, this is incorrect, as Peris is unconcerned with associating queues with intermediate destinations. Specifically, there is nothing in these specific passages and figures of Peris, or in Peris in general, that teaches or suggests an association between a queue and packets intended to be forwarded to a given final destination via a given intermediate destination. Rather, Peris solely describes associating a queue with packets to be sent to a given destination, not with packets to be sent to a given destination via a given intermediate destination (col. 4, lines 43 to 45).

Secondly, Peris does not disclose or suggest rendering inactive or active the state of a queue associated with packets intended to be forwarded to a particular final destination via a particular intermediate destination in response to receipt of a message indicating a reduced or increased ability of the particular intermediate destination to accept packets intended to be forwarded to the particular final destination. Specifically, since Peris does not disclose queues associated with packets to be forwarded to a particular final destination via a particular intermediate destination, Peris cannot possibly be held to teach or suggest altering the state of such queues which are not even disclosed.

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In light of the above, the Applicants respectfully submit that Peris does not disclose or suggest at least one feature of claim 1. Therefore, it is respectfully submitted that Peris does not anticipate claim 1. The Examiner is thus respectfully requested to withdraw the rejection of claim 1, which is believed to be in condition for allowance.

Dependent claims 2 to 5 and 26 to 30

Claims 2 to 5 and 26 to 30 depend on claim 1 and therefore include all the features of claim 1, including those already shown to be absent from Peris. Therefore, for the same reasons as those set forth above in respect of claim 1, it is respectfully submitted that claims 2 to 5 and 26 to 30 are in condition for allowance and the Examiner is respectfully requested to withdraw the rejection of these claims.

Independent claim 31

The Examiner's attention is respectfully directed to the following reproduction of claim 31, portions of which have been emphasized:

A congestion manager for regulating packet flow to a downstream entity capable of forwarding packets to a plurality of intermediate destinations, comprising:

means for maintaining a database of queues, each queue in the database being associated with packets intended to be forwarded to a corresponding one of a plurality of final destinations via a corresponding one of the intermediate destinations, each queue in the database being further associated with a state that is either active or inactive;

means for rendering inactive, upon receipt of a message from the downstream entity indicating a reduced ability of a particular one of the intermediate destinations to accept packets intended to be forwarded to a particular one of the final destinations, the state of the queue associated with

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packets intended to be forwarded to the particular final destination via the particular intermediate destination; and

- means for rendering active, upon receipt of a message from the downstream entity indicating an increased ability of a particular one of the intermediate destinations to accept packets intended to be forwarded to a particular one of the final destinations, the state of the queue associated with packets intended to be forwarded to the particular final destination via the particular intermediate destination.

The Examiner will appreciate that the above-emphasized features of claim 31 are similar to features of claim 1 already shown in respect of claim 1 to be neither taught nor suggested by Peris.

Therefore, for the same reasons as those set forth above in respect of claim 1, it is respectfully submitted that at least one feature of claim 31 is not taught or suggested by Peris and thus that claim 31 is not anticipated by Peris. Accordingly, it is respectfully submitted that claim 31 is in condition for allowance and the Examiner is respectfully requested to withdraw the rejection of this claim.

#### Independent claim 32

The Examiner's attention is respectfully directed to the following reproduction of claim 32, portions of which have been emphasized:

A computer-readable storage medium containing a program element for execution by a computing device to implement a congestion manager for regulating packet flow to a downstream entity capable of forwarding packets to a plurality of intermediate destinations, the program element including:

program code means for maintaining a database of queues, each queue in the database being associated with packets intended to be forwarded to a

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corresponding one of a plurality of final destinations via a corresponding one of the intermediate destinations, each queue in the database being further associated with a state that is either active or inactive;

program code means for rendering inactive, upon receipt of a message from the downstream entity indicating a reduced ability of a particular one of the intermediate destinations to accept packets intended to be forwarded to a particular one of the final destinations, the state of the queue associated with packets intended to be forwarded to the particular final destination via the particular intermediate destination; and

program code means for rendering active, upon receipt of a message from the downstream entity indicating an increased ability of a particular one of the intermediate destinations to accept packets intended to be forwarded to a particular one of the final destinations, the state of the queue associated with packets intended to be forwarded to the particular final destination via the particular intermediate destination.

The Examiner will appreciate that the above-emphasized features of claim 32 are similar to features of claim 1 already shown in respect of claim 1 to be neither taught nor suggested by Peris.

Therefore, for the same reasons as those set forth above in respect of claim 1, it is respectfully submitted that at least one feature of claim 32 is not taught or suggested by Peris and thus that claim 32 is not anticipated by Peris. Accordingly, it is respectfully submitted that claim 32 is in condition for allowance and the Examiner is respectfully requested to withdraw the rejection of this claim.

#### Independent claim 33

The Examiner's attention is respectfully directed to the following reproduction of claim 33, portions of which have been emphasized:

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A congestion manager capable of forwarding packets to a plurality of intermediate destinations, comprising:

a queue processor for maintaining information on a plurality of queues, each queue being associated with packets intended to be forwarded to a corresponding one of a plurality of final destinations via a corresponding one of the intermediate destinations; and

a controller in communication with the queue processor;

said controller being adapted to maintain information on a state of each queue, the state of a queue being either active or inactive;

said controller being further adapted to respond to a message from a particular one of the intermediate destinations indicative of a reduced ability of the particular intermediate destination to accept packets intended to be forwarded to a particular one of the final destinations by rendering inactive the state of the queue associated with packets intended to be forwarded to a particular one of the final destinations via the particular intermediate destination; and

said controller being further adapted to respond to a message from a particular one of the intermediate destinations indicative of an increased ability of the particular intermediate destination to accept packets intended to be forwarded to a particular one of the final destinations by rendering active the state of the queue associated with packets intended to be forwarded to a particular one of the final destinations via the particular intermediate destination.

The Examiner will appreciate that the above-emphasized features of claim 33 are similar to features of claim 1 already shown in respect of claim 1 to be neither taught nor suggested by Peris.

Therefore, for the same reasons as those set forth above in respect of claim 1, it is respectfully submitted that at least one feature of claim 33 is not taught or suggested by



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Peris and thus that claim 33 is not anticipated by Peris. Accordingly, it is respectfully submitted that claim 33 is in condition for allowance and the Examiner is respectfully requested to withdraw the rejection of this claim.

Dependent claims 34 to 37

Claims 34 to 37 depend on claim 33 and therefore include all the features of claim 33, including those already shown to be absent from Peris. Therefore, for the same reasons as those set forth above in respect of claim 33, it is respectfully submitted that claims 34 to 37 are in condition for allowance and the Examiner is respectfully requested to withdraw the rejection of these claims.

Independent claim 38

The Examiner's attention is respectfully directed to the following reproduction of claim 38, portions of which have been emphasized:

A method of regulating packet flow to a downstream entity capable of forwarding packets to a plurality of intermediate destinations, the method comprising:

maintaining a database of queues, each queue in the database being associated with packets of a corresponding one of a plurality of service classes intended to be forwarded to a corresponding one of a plurality of final destinations via a corresponding one of the intermediate destinations, each queue in the database being further associated with a state that is either active or inactive;

upon receipt of a message from the downstream entity indicating a reduced ability of a particular one of the intermediate destinations to accept packets of a particular one of the service classes intended to be forwarded to a particular one of the final destinations, rendering inactive the state of the queue associated with packets of the particular service class intended to be forwarded

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to the particular final destination via the particular intermediate destination; and

upon receipt of a message from the downstream entity indicating an increased ability of a particular one of the intermediate destinations to accept packets of a particular one of the service classes intended to be forwarded to a particular one of the final destinations, rendering active the state of the queue associated with packets of the particular service class intended to be forwarded to the particular final destination via the particular intermediate destination.

The Examiner will appreciate that some of the above-emphasized features of claim 38 are similar to features of claim 1 already shown in respect of claim 1 to be neither taught nor suggested by Peris.

Therefore, for the same reasons as those set forth above in respect of claim 1, it is respectfully submitted that at least one feature of claim 38 is not taught or suggested by Peris and thus that claim 38 is not anticipated by Peris. Accordingly, it is respectfully submitted that claim 38 is in condition for allowance and the Examiner is respectfully requested to withdraw the rejection of this claim.

In addition, and *notwithstanding that claim 38 is believed to be in condition for allowance for the above reasons*, it is respectfully submitted that, in rejecting claim 38, the Examiner has not shown Peris to teach or suggest a further feature of claim 38, namely that "each queue in the database [is] associated with packets of a corresponding one of a plurality of services classes". Accordingly, for this *additional* reason, the Examiner is again respectfully requested to withdraw the rejection of claim 38, which is believed to be in condition for allowance.

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Dependent claims 39 to 42

Claims 39 to 42 depend on claim 38 and therefore include all the features of claim 38, including those already shown to be absent from Peris. Therefore, for the same reasons as those set forth above in respect of claim 38, it is respectfully submitted that claims 39 to 42 are in condition for allowance and the Examiner is respectfully requested to withdraw the rejection of these claims.

**B.5 Rejection of claims 6 to 25 under 35 USC 103**

On page 13 of the Office Action, the Examiner has rejected claims 6 to 25 under 35 USC 103(a) as being unpatentable over U.S. Patent 6,728,211 to Peris *et al.* (hereinafter referred to as "Peris") in view of U.S. Patent 6,856,595 to Brown (hereinafter referred to as "Brown").

The Applicants respectfully traverse this rejection and submits that claims 6 to 25 are in condition for allowance.

Dependent claims 6 to 25

Firstly, claims 6 to 25 depend on claim 1 and therefore includes all the features of claim 1, including those already shown in respect of claim 1 to be absent from Peris, namely "maintaining a database of queues [where] each queue [is] associated with packets intended to be forwarded to a corresponding one of a plurality of final destinations via a corresponding one of a plurality of intermediate destinations".

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Secondly, it is respectfully submitted that the Examiner has not shown Brown to teach or suggest these features of claim 1 that have been shown to be absent from Peris.

Accordingly, the Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness since it was not shown that Peris and Brown, taken alone or in combination, teach or suggest all of the claim features<sup>1</sup>. The Examiner is thus respectfully requested to withdraw the rejection of claims 6 to 25, which are believed to be in condition for allowance.

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<sup>1</sup> For the Examiner to establish a *prima facie* case of obviousness, three criteria must be considered: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings, (2) there must be a reasonable expectation of success, and (3) the prior art references must teach or suggest all of the claim limitations. MPEP §§ 706.02(j), 2142 (8th ed.).

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### III. CONCLUSION

In view of the foregoing, the Applicants are of the view that claims 1 to 42 are in condition for allowance. Favourable reconsideration is requested. Early allowance of the application is earnestly solicited.

If the application is not considered to be in full condition for allowance, for any reason, the Applicants respectfully request the constructive assistance and suggestions of the Examiner in drafting one or more acceptable claims pursuant to MPEP 707.07(j) or in making constructive suggestions pursuant to MPEP 706.03 so that the application can be placed in allowable condition as soon as possible and without the need for further proceedings.

Respectfully submitted,



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